WEAR CONTAMINATION FLUID CONDITION

ABNORMAL ABNORMAL NORMAL

KUBOTA X900 MCP001

Diesel Engine

DIESEL ENGINE OIL SAE 15W40 (GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.	Sample Number		Client Info		WC0861363	WC0726873	WC0650130
	Sample Date		Client Info		23 Dec 2023	25 Oct 2023	03 Aug 2022
	Machine Age	hrs	Client Info		1995	1939	1688
	Oil Age	hrs	Client Info		0	0	250
	Filter Age	hrs	Client Info		0	0	250
	Oil Changed		Client Info		N/A	Changed	Changed
	Filter Changed		Client Info		N/A	Changed	Changed
	Sample Status				ABNORMAL	SEVERE	ABNORMAL
WEAR	PQ		ASTM D8184*		8	88	
Aluminum and iron ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated. Piston wear is indicated.	Iron	ppm	ASTM D5185(m)	>100	<u> </u>	334	45
	Chromium	ppm	ASTM D5185(m)	>20	6	1 9	2
	Nickel	ppm	ASTM D5185(m)	>4	<1	1	0
	Titanium	ppm	ASTM D5185(m)		<1	5	<1
	Silver	ppm	ASTM D5185(m)	>3	0	<1	0
	Aluminum	ppm	ASTM D5185(m)	>20	△ 53	▲ 214	15
	Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
	Copper	ppm	ASTM D5185(m)	>330	4	14	2
	Tin	ppm	ASTM D5185(m)	>15	<1	2	<1
	Vanadium	ppm	ASTM D5185(m)		0	0	<1
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	4 73	3 10	4 3
Light fuel dilution occurring. There is a moderate concentration of dirt present in the oil. Light concentration of carbon/soot present in the oil. Test for glycol is negative. High amount of ingressed dirt has caused abrasive wear to the component. No other contaminants were detected in the oil.	Potassium	ppm	ASTM D5185(m)	>20	13	<u></u> 56	3
	Fuel	%	ASTM D7593*	>5	1.3	<1.0	1.1
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol	%	ASTM D7922*		0.0	0.0	NEG
	Soot %	%	ASTM D7844*	>3	△ 3.2	1.5	0.4
	Nitration	Abs/cm	ASTM D7624*	>20	10.1	11.4	11.4
	Sulfation	Abs/.1mm	ASTM D7415*	>30	28.9	26.8	24.2
	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)	>158	15	58	5
The oil is no longer serviceable as a result of the abnormal and/or severe wear.	Boron	ppm	ASTM D5185(m)	250	42	16	40
	Barium	ppm	ASTM D5185(m)	10	<1	6	0
	Molybdenum	ppm	ASTM D5185(m)	100	46	69	85
	Manganese	ppm	ASTM D5185(m)		1	5	<1
	Magnesium	ppm	ASTM D5185(m)	450	567	780	42

Calcium

Zinc

Sulfur

Oxidation

Visc @ 100°C cSt

Phosphorus

ppm

ppm

ppm

ppm

Abs/.1mm

ASTM D5185(m)

ASTM D5185(m)

ASTM D7414*

ASTM D5185(m) 1150

ASTM D5185(m) 4250

ASTM D7279(m) 14.4

3000

1350

>25

1742

775

924

2194

21.3

14.9

1610

953

1217

2540

21.7

14.3

11.2

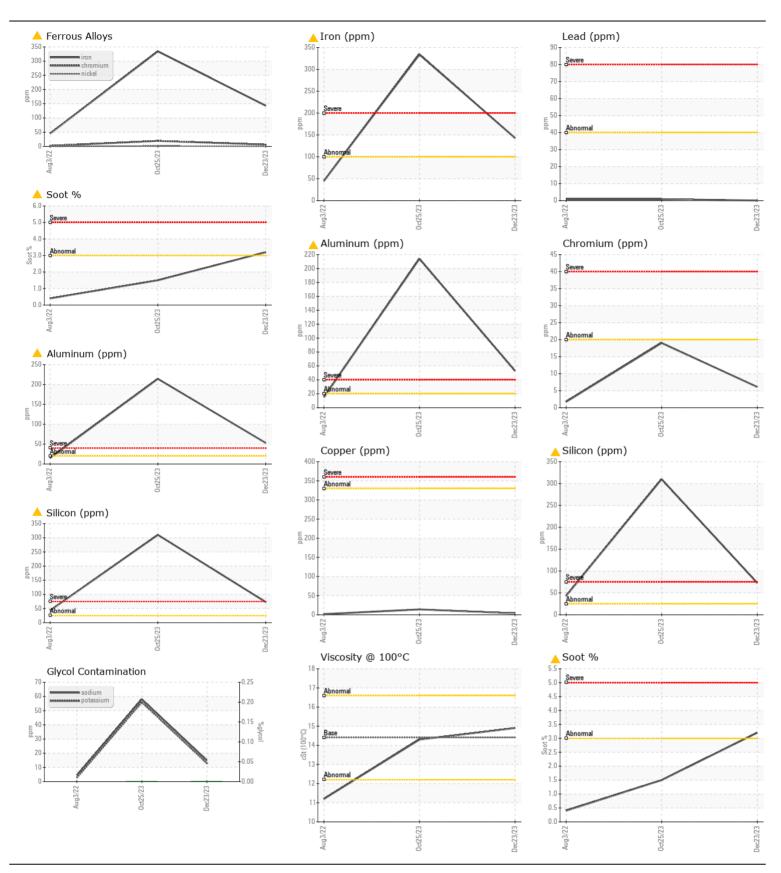
2272

1182

20.4

1075

3070





CALA ISO 17025:2017 Accredited

Laboratory Sample No. Lab Number **Unique Number**

: WC0861363 : 02606495

: 5707581

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Recieved Diagnosed

: 04 Jan 2024 : 09 Jan 2024

Diagnostician : Kevin Marson

Agnico Eagle Canada 1350 Government Rd. W, MACASSA COMPLEX

Kirkland Lake, ON CA P2N 3J1 Contact: Jay Gould

Test Package : MOB 1 (Additional Tests: FuelDilution, Glycol, PercentFuel, PQ) To discuss this sample report, contact Customer Service at 1-800-268-2131.

MacassaMobileUGPlanning@agnicoeagle.com T: (705)567-5208

Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

F: (705)567-5221